

Alg. 2 Warm Up # 4-5



New team # on WU!

1. Find the inverse equation for

$$y = 3x + 4$$

2. Describe the transformations of the parent:

$$y = -\frac{1}{5}(x + 8)^4 - 7$$

HW Questions: green WS

Alg 2B Last test practice Ch.5

1. Factor completely

Name _____

Team _____ Per _____

a) $x^2 + 7x + 6$

b) $x^2 - 100$

c) $x^2 + 6x + 9$

d) $x^2 - 11x + 24$

e) $5x^2 - 45$

f) $3x^2 + 6x + 3$

g) $4x^2 - 49$

h) $4x^2 - 12x - 40$

i) $6x^2 - 2x$

j) $14x^2 - 14$

k) $2x^2 + 10x$

l) $6x^3 + 9x^2 - 6x$

2. Describe the transformations of the parent graph.

a) $y = 5\sqrt{x-2} + 3$

b) $y = -\frac{2}{5}(x+1)^3 - 7$

3. Solve for x without using a calculator.

a) $\log_x 27 = 3$

$x = 3$

b) $\log_6 x = 0$

$x = 1$

c) $\log_7 x = -1$

$x = \frac{1}{7}$

d) $\log_x 4 = \frac{1}{2}$

$x^{1/2} = 4$

$\sqrt{x} = 4$

$x = 16$

e) $\log_6 \frac{1}{36} = x$

$6^x = \frac{1}{6^2}$

$x = -2$

f) $\log_4 1 = x$

$4^x = 1$

$x = 0$

4. Find the inverse equation and state the domain and range of both.

$$y = 2\sqrt{x+3} - 5$$

orig

$$d: x \geq -3$$

$$r: y \geq -5$$

inverse

$$x \geq -5$$

$$y \geq -3$$

$$x = 2\sqrt{y+3} - 5$$

$$\frac{x+5}{2} = \frac{2\sqrt{y+3}}{2}$$

$$\left(\frac{x+5}{2}\right)^2 = (\sqrt{y+3})^2$$

$$\frac{(x+5)^2}{4} = y+3$$

$$y = \frac{1}{4}(x+5)^2 - 3$$

5. Simplify. (No negative exponents in your answer and each letter should only appear once. Reduce fractions, no decimals or mixed numbers.)

a) $\frac{4x^{-2}}{x^7}$

b) $\frac{\cancel{14}^2 x^2 y^5}{3x} \cdot \frac{5x}{\cancel{49}^7 y^{10}}$

c) $\frac{6x}{9y^{-2}} \cdot \frac{2x^{-5}y^3}{y}$

$$d) \frac{7x^{-2}}{x^4y} \div \frac{35xy}{y^5}$$

$$e) \frac{5x^0}{3} \div \frac{(2x)^3y}{9x^2}$$

$$\frac{5}{3} \cdot \frac{9x^2}{(2x)^3y}$$

$$\frac{15x^2}{8x^3y}$$

Chapter 6 starts Monday.
Exchange your book for Vol. 2!

HW: White worksheet
(HW after ch. 5)